



EFILive Command Line Reference

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Contents



.....3

Prerequisites3

 Intended Audience3

 Computer Knowledge.....3



.....4

Introduction.....4

 EFILive Command Line Interface4

 Automation.....4

 Gang-Programming4

 USB Requirements.....4



.....5

Command Line Interface5

 Reference.....5

 Installation5

 Version Compatibility5

 Command Line Syntax6

 Switches6

 -dX (device)7

 -nX (number of devices).....7

 -iX (identification)7

 -fX (format)8

 -q (quiet)8

-vX (verbose) 8
-rX (remote folder)..... 9
Arguments 9
Argument as a folder name 10
Argument as a file name..... 10



..... 11
Appendix A Device Identification 11



..... 12
Appendix B Integration 12



Prerequisites

Intended Audience

EFILive AutoCal resellers who need to automate and optimize the configuration and programming of AutoCal devices prior to shipping.

Computer Knowledge

It is expected that readers have a basic understanding of:

- The Windows operating system;
- Starting and using Windows applications;
- The Windows Command Line Interface;
- Windows batch files;
- Navigating folders and copying and moving files using Windows Explorer.



Introduction

EFILive Command Line Interface

Automation

The EFILive Command Line Interface application (CLI) provides tuners with a way to automate the following tasks using the Windows command line or Windows batch files:

- Program FlashScan/AutoCal device settings;
- Program black box scan and tune options;
- Format the FlashScan/AutoCal file systems;
- Copy tune files to FlashScan/AutoCal;

Gang-Programming

As well as automation, the CLI also supports gang-programming. Gang-programming allows up to five devices to be programmed and updated simultaneously.

If you find yourself setting up and programming the same FlashScan/AutoCal configurations day after day into multiple devices, then using gang-programming will reduce your workload.

USB Requirements

When connecting multiple FlashScan/AutoCal devices to your PC, you should use an external, self-powered USB 2.0 hub. Ensure that the hub is capable of supplying the necessary power requirements. Connecting five FlashScan devices requires a self-powered hub that can provide enough current to operate itself plus five FlashScan/AutoCal devices simultaneously. Each FlashScan/AutoCal device is capable of drawing up to 250mA.



EFILive recommends using an external, self-powered, USB 2.0 hub with a power supply rated at 2A or higher.



Command Line Interface

Reference

Installation

The EFILive V8 software must be installed prior to installing or using the EFILive Command Line application.

Copy the EFILive_CmdLine.exe file into the same folder that contains the EFILive_Hapi.exe file. Usually that will be the folder:

`\Program files (x86)\EFILive\V8`

You may need administrator privileges to complete that operation.

Version Compatibility

Ensure that the version number of the EFILive_Hapi.exe file is V8.2.2 Build 303 or later.



To view the EFILive_Hapi.exe version number, run the EFILive Control Panel (if it is not already running) and click on the FlashScan icon in the system tray (near the clock on the Windows Task Bar), then select the [F10: About] tab page.

Command Line Syntax

Usage: EFILive_CmdLine [switches] [list[,list]]

Switches:

- dX Target device X where X is one of:
 AC2 = AutoCal V2
 FS2 = FlashScan V2
 Default: -dAC2

- nX Connect to exactly X devices where X is 1..5
 Default: -n1

- iX Identify device on LCD where X is one of
 0 = Hide identifier
 1 = Show identifier
 Default: -i1

- fX Format target device(s) volume X where X is one of
 c = Config
 d = Data
 Default: Do not format

- q Quiet, do not display progress/results
 Default: Not quiet

- vX Set verbose detail to X where X is one of
 0: No information
 1: Normal information
 2: Verbose information
 Default: -v0

- rX Set remote folder to X
 Default: -r/EFILive/Config

- a Display version information

Arguments:

- list Copy files in list[n] to device [n]
 List may be one of:
 a folder containing the files to copy
 a file containing a list of file names to copy
 Default: Do not copy any files

Switches

Switches are used to modify the processing behavior of the CLI. If a switch is specified more than once on the command line the switch furthest to the right takes precedence.

The exception to that is the `-f` switch. If both the `-fc` and `-fd` switches are specified then both the Config and Data file systems are formatted.

Switches may be prefixed with either the minus symbol like this `-dAC` or the forward slash symbol like this `/dAC`.

Switches must be separated by one or more spaces and may not appear after the first argument. Any switch that does appear after the first argument will be treated as an argument.

-dX (device)

The -dX switch tells the CLI which devices it will be using.

Use:

- -dAC2 if you are targeting AutoCal V2 devices.
- -dFS2 if you are targeting FlashScan V2 devices.

Targeting a combination of FlashScan and AutoCal devices is not supported.

If this switch is not supplied the default value is -dAC2.

-nX (number of devices)

The -nX switch tells the CLI how many FlashScan or AutoCal devices are connected to the USB hub. If the exact number of devices are not detected by the CLI, then no files are copied.

Use:

- -n1 for a single device.
- -n2 for two devices.
- -n3 for three devices.
- -n4 for four devices.
- -n5 for five devices.

If this switch is not supplied the default value is -n1.

-iX (identification)

The -iX switch shows or hides the device identification number on each devices' LCD. The device identification allows you to track which files were sent to which device.

Use:

- -i0 will hide the device identification.
- -i1 will show the device identification.

If this switch is not supplied the default value is -i1.

See Appendix A for more information on device identification.

-fX (format)

The -fX switch causes one or both of the Config and Data file systems to be formatted.

Use:

- -fc to format the Config file system.
- -fd to format the Data file system.
- -fc -fd to format both the Config and Data file systems.



No warning is displayed prior to formatting a file system. All data on the file system will be erased during the format.



It is not recommended to use the -fd switch on a FlashScan device fitted with an SD Card. SD Cards can take multiple minutes to format and the CLI application will not wait long enough for the format to complete, causing the CLI to abort.

If this switch is not supplied, then no formatting takes place.

-q (quiet)

The -q switch suppresses output messages.

Use:

- -q to suppress output messages.

If this switch is not supplied, then output messages are not suppressed.

-vX (verbose)

The -vX switch sets the verbosity level for diagnostic messages.

Use:

- -v0 to suppress all diagnostic messages.
- -v1 to display normal diagnostic messages.
- -v2 to display all diagnostic messages.

If this switch is not supplied, then it defaults to -v0.



Using -v2 may cause a large amount of text messages to appear on the console.

-rX (remote folder)

The `-rX` switch is really only useful when copying unknown file types. When known file types are copied, the files' extensions are used to infer the correct destination remote folder.

Extension	Default Remote Folder
.txt	/EFILive/Config
.obj	/EFILive/Config
.bix	/EFILive/Config
.pmm	/EFILive/Config
.dtc	/EFILive/Config
.ctz	/EFILive/Tune
.coz	/EFILive/Tune
.dat	Internal

If a file does not have one of those extensions, then you should specify the destination remote folder using this switch.

Use:

- `-r/EFILive/Config` to copy files into /EFILive/Config.
- `-r/EFILive/Scan` to copy files into /EFILive/Scan.
- `-r/EFILive/Tune` to copy files into /EFILive/Tune.
- `-r/EFILive/Tune/Read` to copy files into /EFILive/Tune/Read.



A remote folder name of /EFILive/Config will cause the file being copied to be copied into the Config file system. All other folder names cause the file to be copied to the Data file system.

An error will occur if the remote folder does not exist.

If this switch is not specified, then `-r/EFILive/Config` is used.

Arguments

Arguments are listed on the command line after the last switch. Arguments should not begin with either of the switch prefix characters: `-` or `/`.

If you cannot avoid using an argument that begins with either of the switch prefix characters, then separate the last switch from the first argument with a single `-` or `/`

character. For example if the first argument is a folder name that starts with the – character like this “–myfolder” then the command line could look like this:

```
EFILive_CmdLine -dFS2 -n2 - -myFolder1 -myFolder2
```

Notice the – between –n2 and –myFolder1? That tells the CLI that –myFolder1 is the first argument and not another switch.



Be careful not to accidentally introduce a space between the – and its switch letter like this:

```
EFILive_CmdLine -dFS2 - n2 Folder1 Folder2
```

because that will cause the “n2” to be treated as an argument instead of a switch.

You **must** specify as many arguments as there are devices declared by the –nX switch (or zero arguments). Each argument supplied resolves to a list of filenames that will be copied to its corresponding device.

- The first argument is the list of files that will be copied to device 1.
- The second argument is the list of files that will be copied to device 2.
- The third argument is the list of files that will be copied to device 3.
- ...
- etc.

Each argument must be either:

- The name of an existing folder or;
- The name of an existing text file.

If zero arguments are specified, then no files are copied. Specifying zero arguments is useful if you just want to format the file systems or display the device ID, for example:

To format the Config file system on 3 FlashScan devices do this:

```
EFILive_CmdLine -dFS2 -n3 -fc
```

To display the device ID on 5 FlashScan devices do this:

```
EFILive_CmdLine -dFS2 -n5 -i1
```

Argument as a folder name

If the argument is a folder name, then all files in that folder will be copied to the device.

Argument as a file name

If the argument is a text file name, then each line in that file is the name of a file that will be copied to the device.

- Blank lines are ignored.
- Lines beginning with a semicolon are treated as comments and are ignored.
- Duplicate file names are only copied once.



Appendix A Device Identification

It is not always possible for the EFILive software to correctly identify a set of identical USB devices by their physical connection with the PC. Especially if the PC has USB 3.0 capability. The FTDI USB drivers cannot determine the physical location ID's of USB 3.0 ports.



Any task that requires programming a specific device with a specific set of files, should only be performed while a single device is connected.

To identify multiple devices uniquely, the EFILive Command Line Interface can request that each device displays a device ID on its LCD screen (via the `-i1` switch).

When gang-programming multiple devices, it is not possible to determine which device will be assigned which id prior to connecting the devices and displaying the IDs.

Each ID that is displayed corresponds to one of the command line arguments, such that:

- files in the first argument are copied to the device displaying ID 001.
- files in the second argument are copied to the device displaying ID 002.
- files in the third argument are copied to the device displaying ID 003.
- files in the fourth argument are copied to the device displaying ID 004.
- files in the fifth argument are copied to the device displaying ID 005.



If you invoke the EFILive Command Line Interface multiple times on the same set of devices without disconnecting/reconnecting any device, then each device will retain the same ID across each invocation.

If you disconnect/reconnect one or more devices then the device ID's of each device are not guaranteed to remain the same.



Appendix B Integration

The CLI uses the EFILive Control Panel application (aka EFILive_Hapi.exe) to communicate with FlashScan and AutoCal devices.

When the CLI runs, it automatically starts EFILive_Hapi.exe in background (if it is not already running) and a small FlashScan icon appears in the system tray.

Normally applications that start the EFILive Control Panel register their main window with the Control Panel. The Control Panel monitors that window and when it closes, the Control Panel automatically deregisters the application. When no more applications are registered with the Control Panel, the Control Panel terminates.

The CLI does not have a window of its own that it can register with the Control Panel, so it registers the Windows Command Line window instead. That means the EFILive Control Panel will not deregister the CLI application until the Windows Command Line window is closed.

Under certain error or abnormal abort conditions the FlashScan/AutoCal devices and the EFILive Control Panel can become unresponsive. Usually because the multiplexed messages for devices have become unsynchronized.

If you see any errors with the text "...can't get control of semaphore..." or the CLI simply becomes unresponsive then you should:

- If the CLI is unresponsive, press Ctrl+C to terminate the CLI.



Some tasks can take minutes to complete, don't confuse a long running task with the CLI hanging.

If in doubt, use the command line switch `-v2` to display diagnostic trace messages.

- Disconnect all FlashScan/AutoCal devices.
- Manually close the Control Panel.



Right click on the FlashScan icon in the System Tray (near the clock on the Windows Task Bar) and select "Exit".

If the Control Panel is unresponsive, use Windows Task Manager to end the EFILive_Hapi.exe process listed in the [Processes] tab page.

- Reconnect all FlashScan/AutoCal devices.
- Retry the CLI command(s).